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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,789	09/10/2003	Timothy Jon Leeper	334484.00002	1824

27160 7590 09/14/2006

PATENT ADMINISTRATOR
KATTEN MUCHIN ROSENMAN LLP
1025 THOMAS JEFFERSON STREET, N.W.
EAST LOBBY: SUITE 700
WASHINGTON, DC 20007-5201

EXAMINER	
GUPTA, ANISH	

ART UNIT	PAPER NUMBER
1654	

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/658,789	LEEPER ET AL.	
	Examiner	Art Unit	
	Anish Gupta	1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *19-28* is/are allowed.

6)☒ Claim(s) *1-18 and 29-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

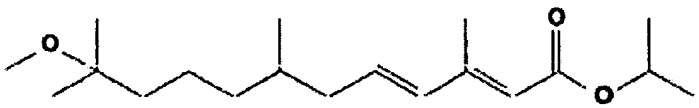
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

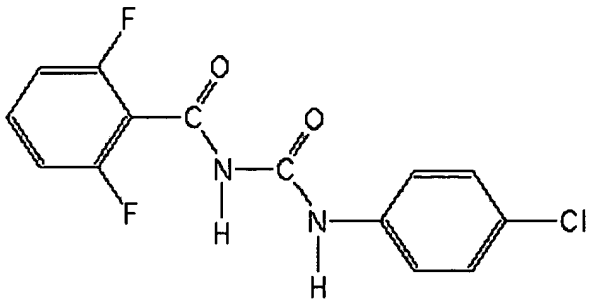
1. Applicant's election with traverse of substrate as a paper, UV protectant as benzophenone, and the hormone as metoprene, in the reply filed on 1-5-06 is acknowledged. The traversal is on the ground(s) that a search of the art for one group of claims will necessarily include a search of the art for the other group of claims. "It is believed that the burden on the Examiner to examine all claims in a single application is less than the burden on the Applicant/public to prosecute/search more than one application/patent." This is not found persuasive because of the following reason.

While Applicants concern for the burden on prosecution of numerous application and the burden on the public is acknowledged, Applicants are reminded that this is not the standard for the basis of a restriction. There are two criteria for a proper requirement for restriction between patentably distinct inventions: (A) The inventions must be independent or distinct as claimed; and (B) There would be a serious burden on the examiner if restriction is not required, See MPEP 803. The burden on the public and the Applicant on prosecution of the multiple application is not a factor to consider. Here, the claims are drawn to a composition with generics of UV protectant and a hormone. Within the art, hormones consist of structurally distinct compounds such as proteins and non-peptide compounds. For example, methaprene, which Applicants elected, has the structure:



Methoprene (>30,000 mg/kg)

where as dimilin has a structure of:



Methapren and Dimilin are significantly distinct from one another and do not render obvious one another. Thus, the individual hormones claimed are distinct form one another. With respect to the burden, unlike Applicants contention, a search would not lead to the other. A search for methoprene, based on structure, would not lead to Dimilin. Each hormone would have to be search independently. Further, a search would also have to be conducted on each UV protectant. Thus, the search burden would indeed be serious.

If Applicants believe, however, that the species claimed in the instant application are not patentably distinct, then Applicants are requested to make such an admission of record. Should applicant traverse on the ground that the inventions or species are not patentably distinct and if a determination is made that one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention. See MPEP 818.03(b).

The requirement is still deemed proper and is therefore made FINAL.

In accordance with species practice, a search for the elected species was conducted and prior art was found that renders obvious the claimed invention. Applicants did not identify the claims readable upon their election, as required by MPEP 809.02 and 818.03(b), thus it is believed that the elected species read upon claims 1-42

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 30 recites the limitation " polymer emulsion," "aqueous crosslinking agent" "defoamer" and "polyethylene wax emulsion" and "polypropylene wax emulsion" in base claim 29. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 13, 15-16, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Fekete et al. (US4774090).

The claims are drawn to a hormone composition comprising a substrate onto which is coated a juvenile hormone dispersed into a polymer web and UV protectant.

The reference of Fekete et al. teach microcapsules of methoprene incporated onto salt blocks. The reference specifically disclose the microencapsulated methorprene is effective as a pesticide and can be used to combat flies (see col. 1, lines 6-11). The reference disclose microencapsulating of methoprene as disclosed in US 3912815 (see col. 1, lines 15-18). This patent teaches the use of di-olifinic acids and esters to encapsulate insecticides The reference further teaches that it has been found that the decomposition of methoprene can be slowed down by means

of antioxidants and light-protecting agents (see col. 2, lines 13-15). The reference states that microencapsulated insecticidal composition containing isopropyl (2E,4E)-3,7,11-trimethyl-11-methoxy-2,4-dodecadienoate which comprises 45-95% by weight of isopropyl (2E,4E)-3,7,11-trimethyl-11-methoxy-2,4-dodecadienoate as active ingredient, 1-15% by weight of butyl hydroxy toluene and 5-40% by weight of activated charcoal, in the form of powdery microcapsules having a grain size of 1-300 .mu.m and coated with a hydroxypropyl methyl cellulose phthalate or cellulose acetate phthalate polymer (see col. 2, lines 31-45). Finally, he microcapsules thus obtained are incorporated into a fodder salt to yield a salt mixture having a methoprene content of about 0.02%. From the mixture thus obtained blocks (diameter 16.5 cm; height: about 15 cm) are pressed with the aid of a suitable equipment. Fodder salt meets the limitation of the substrate and charcoal meets the limitation of the UV absorber.

4 . Claims 1-2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Emodi et al. (US3961051).

The claims are drawn to a hormone composition comprising a substrate onto which is coated a juvenile hormone dispersed into a polymer web and UV protectant.

Emodi et al. teach a juvenile hormone formulation for combating pest that comprise about 10 to 75 weight percent of a juvenile hormone, 1% to 25% by weight of a phenolic anti-oxidant, and from about 1 to 20% by weight of an acrylonitrile (see claim 1). The acrylonitrile serves also as a U.V. blocker (see claim 1). The ready-to-use pest-control agents of this invention may be advantageously applied to certain plants, foodstuffs, textiles and the like (see col. 2, lines 54-58). This meets the limitation of the substrate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-5, 7-8, 29, 31-42, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd et al .(WO99/32088) in view of Shanjahan et al.

The reference of Shepherd et al. teach an topically acceptable pour on formulation that is used as an insecticidal agent (see abstract). The reference discloses a composition that contains a insect growth regulator, a suspending agent, mixture of surfactants, and an aqueous carrier (see page 5, lines 11-17). The insect growth regulators include methoprene (see page 5, line 34). Suitable suspending agents include colloidal silica, bentonite, polyvinyl pyrrolidone, cellulose derivatives (see page 6, lines 1-4). An effective of surfactant must e incorporated into the formulation to provide sufficient dispersant activity. These surfactants include alkyl polysaccharides or alkyl phone ethoxylates, such as nonyl phenol ethoxylate (see page 6, lines 5-14). Note that this meets the

limitation of the polymer as currently claimed. The reference goes on to teach that other ingredients may be suitably included such as UV stabilizers such as oxybenzone [which is 2-hydroxy-4-methoxy benzophenone] (see page 6, lines19-20). The reference discloses the concentration of the active agent is between 5-50g/L, the surfactant (non-ionic) 10-100g/L, and suspending agent between 3-10 g/L (see page 7, lines 1-8). The difference between the claimed invention and the prior art is that the reference does not disclose the application onto substrate such as paper.

However, Shanjahan et al. teach that methoprene coated in papers were used to test the effect against rearing and storage of perishables over short time frame. It would have been obivious to one of ordinary skill in the art to supplement the Shepherd formulation on paper to determine its effectiveness against different type of insects in a controlled laboratory setting. One would be motivated to do so because one of ordinary skill in the art often tests the product in a laboratory setting to determine the effectiveness of the product.

6. Claims 1-6, 11-12, 14 and 29, 33, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbald et al. (US5849320).

The claims are drawn to a hormone composition comprising a substrate onto which is coated a juvenile hormone dispersed into a polymer web and diatomaceous earth.

The reference teaches insecticidal seed coating comprises: (1) 0.01-15 weight % binder comprising polymers and copolymers of polyvinyl acetate, methyl cellulose, polyvinyl alcohol, vinylidene chloride, acrylic cellulose, polyvinyl pyrrolidone or polysaccharide; (b) 0.005-50 weight % insecticide comprising terbufos, chlorpyrifos, fipronil, chlorethoxyfos, tefluthrin, carbofuran, imidacloprid, tebupirimifos, methoprene or hydroprene; and (c) 0.01-20 % (sic) film overcoat comprising methyl cellulose, hydroxypropylmethyl cellulose, dextrin, gum, wax, vegetable or paraffin

oil, water soluble or water dispersible polysaccharides or their derivatives, alginates, starch, cellulose, synthetic polymer, polyethylene oxide, polyvinyl alcohol, polyvinyl pyrrolidone, polyvinyl acetate and/or polyethylene glycol or their copolymers or polymers; and optionally (d) water; and/or optionally (e) fungicides and/or herbicides, a filler comprising wood flours, clays, inorganic solids, active C, diatomaceous earth and/or calcium carbonate, a plasticiser, a bird repellent compound, a safener, a fertiliser, a biocontrol agent, a colourant, a brightener, a surfactant and/or a seed primer, the binder forming a matrix for the insecticide n the seed (see claim 9). The coating is used on seeds (see claim 10), thereby meeting the limitation of the substrate. The reference states the seeds may be coated via conventional means such as drum coaters, fluidized bed techniques and spouted beds (see col. 6, lines 7-15). The reference disclose the spraying of the coating on to the seed (see col. 7, lines 30-35). The difference between the prior art and the instant application is that the reference does not specifically disclose the same concentration of the active ingredients as claimed.

However, Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. . . The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages." See MPEP 2144.05. Thus, it would have been obvious to one of ordinary skill in the art to optimize the concentration of the ingredients used because the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages. Here, the reference gives general concentrations thus one would be

motivated to work within these concentrations. Further, it would have been further obvious to use the coating on filter paper to test the effectiveness of the coating against pest in a lab setting. Filter paper is often used as a test material in insecticidal experiments.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

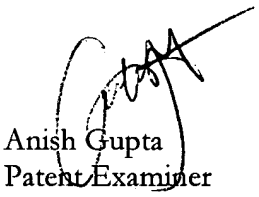
A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claims 1-12 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 49-60 of copending Application No. 10/356,731. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

8. Claims 19-28 are allowed. The above cited claims are allowed over the prior art since the prior art does not fairly teach nor suggest a coating formulation containing a defoamer at a concentration of .001 to about 5 weight percent and 1-40 weight percent of a polyethethylne wax emlstion or a polypropylene wax emulsion, in combination with a hormone.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Gupta whose telephone number is (571)272-0965. If attempts to reach

the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang, can normally be reached on (571) 272-0562. The fax phone number of this group is (571)-273-8300.



Anish Gupta
Patent Examiner